

Effect Of Audiovisual Media In Health Education On Knowledge And Skills Adolescent Girls About BSE Examination At SMAN 10 Tasikmalaya

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ABSTRACT

(1) Background: Cancer is one of the leading causes of death and the type of cancer that occurs more in women is breast cancer. One of the most effective ways to prevent breast cancer is to perform breast self-examination (BSE) in adolescence. (2) Objective: This study is to determine the effect of using audiovisual media in health education on the knowledge and skills of adolescent girls about breast self-examination (BSE) at SMAN 10 Tasikmalaya. (3) Methods: This type of research is quasi experimental with one group pretest-posttest design. Sampling using proportional stratified random sampling technique with a total of 85 respondents, conducted in September 2023. Data analysis used Wilcoxon test and data collection using knowledge questionnaire and BSE skill observation sheet. (4) Results: The results of this study showed that the average knowledge score of adolescent girls at pretest 67.24 and at posttest increased to 85.24, while the average skill score at pretest 39.07 and at posttest increased to 64.64. Wilcoxon statistical test found that there is an effect of health education using audiovisual media on the level of knowledge and skills of adolescent girls about Breast Self Examination (BSE) with a p-value = 0.000 or $p < 0.05$. (5) Conclusion: This study found that there is an effect of health education using audiovisual media on the knowledge and skills of adolescent girls about Breast Self Examination (BSE) at SMAN 10 Tasikmalaya.

1. INTRODUCTION

The type of cancer that occurs more in women is breast cancer. One of the efforts to prevent breast cancer is through early detection known as the BSE (Breast Self Examination) method.(Efni & Fatmawati, 2021) Globocan International Agency for Research on Cancer (IARC) data in 2020 shows the number of new cases of breast cancer reached 68,858 cases, while according to the Indonesian Ministry of Health in Indonesia there are 396,914 new cases of cancer, 234,511 cancer deaths and the highest cancer in women is breast cancer 65,858 cases.(Kesehatan, 2022)

Breast cancer initially only affects women over the age of 30 but currently breast cancer also affects women who are young or adolescents.(Sinaga & Ardayani, 2016) Adolescence is a transitional period between childhood and adulthood that begins at sexual maturity, which is between the ages of 11 or 12 years and 20 years, facing young adulthood. During this time, physical, mental, emotional, and social growth and development occur rapidly.(Soetjningsih, 2014) Breast problems such as benign breast tumors and breast cancer can arise as a result of hormonal changes that occur in adolescents. Fibroadenoma Mammarum (FAM) is a breast disorder that is a benign tumor that grows in the breast. FAM is the most common tumor in Indonesia, second only to ovarian or cervical tumors.(Arfina et al., 2022)

According to a report by Western Services Alliance, about 16% out of six women aged 15-25 years experience Fibroadenoma Mammarum (FAM). In Indonesia, data from the World Health Organization shows there are approximately 40 cases of FAM per 100,000 population, with FAM sufferers having twice the risk of developing breast cancer compared to women without FAM. The number of breast tumor cases detected in Indonesia continues to increase every year. In 2015, there were 1.8 cases per 100,000 women, increased to 3.3 cases per 100,000 women in 2016, and experienced a drastic increase to 21.3 cases per 100,000 women in 2017. In 2018, the number of FAM cases reached 16,956.(Kemenkes RI, 2019)

The most effective way that can be done for early detection of the possibility of this disease is by conducting breast self-examination (BSE) which can reduce mortality by (25-30%).(Tamar Jaya & Dwi Putri Rusman, 2020) In West Java Province in 2018 the number of breast tumor cases was 4,141 and suspected breast cancer 149.8. Meanwhile in 2019 there were 594 cases of breast cancer.(Rismawati & Herliani, 2022). According to data from the Tasikmalaya City Health Office in 2023 the number of breast cancer cases was 101, while the number of benign breast tumors or Fibroadenoma Mammarum (FAM) in adolescents aged 15-19 years was 23 cases in 2022. At Puskesmas Mangkubumi, there were 12 cases of breast tumors at the age of < 30 years during 2022 to June 2023 and 2 of them died. Breast tumors have been found at a young age, with many adolescent girls as young as 15 years old suffering from them. These tumors can develop into cancer if not detected promptly.(Arfina et al., 2022)

Women who have a low level of knowledge and understanding about breast cancer and how to detect it need to be given information about breast cancer and how to detect it, namely BSE, since adolescence.(Tamar Jaya & Dwi Putri Rusman, 2020) This is in line with the research of Dewi et al. (2021) on "The Relationship between Knowledge and Early Detection of Breast Cancer (BSE) in Adolescent Girls at MAN 1 Sukabumi in the Working Area of the Sekarwangi Health Center, Sukabumi Regency" which shows that 98 respondents (36%) have not received information, which means that respondents' knowledge about breast cancer self-detection is still low.(Dewi et al., 2021)

Health education is the first step in improving a person's knowledge because it can provide knowledge, including education about breast self-examination because BSE can reduce the incidence of breast cancer in women. Learning media is one of the essential elements in successful health education .(Notoatmodjo, 2015) One of the effective learning media for the health education process is audio-visual media. Audio-visual media is one of the teaching techniques that has many advantages, because the media is a source of information that can affect a person's level of knowledge that not only utilizes the sense of hearing, but the sense of sight.(Praamerwesti, 2017)

According to research from Aeni & Sri (2018) the use of video media in learning activities is more than just a tool; it also functions as a messenger or information to be conveyed. The use of BSE videos can provide a clearer understanding of the importance of breast self-examination because respondents not only hear the information conveyed but also see the BSE process directly and clearly.(Aeni et al., 2018). The results of research from Dewi et al. (2021) showed that adolescent girls who know about BSE examination will encourage them to detect breast cancer early, and can reduce the mortality rate due to cancer.(Dewi et al., 2021) In the research of Sulasimini et al. (2017) breast self-examination (BSE) will be more effective in adolescents, because at that age it is the right time for

early prevention of breast cancer, this must be mastered by adolescent girls so that they can carry out early detection to improve the knowledge and skills of adolescent BSE through BSE training. (Bale et al., 2017)

Based on the background description, the researcher is interested in conducting research on "The Effect of Using Audio Visual Media in Health Education on the Knowledge and Skills of Adolescent Girls About Breast Self-Examination (BSE) at SMAN 10 Tasikmalaya

2. METHODS

This type of research is quasi experimental with one group pretest-posttest design. The population in this study were 468 adolescent girls in class X and XI at SMAN 10 Tasikmalaya. Sampling using proportional stratified random sampling technique with a total of 85 respondents, conducted in September 2023. The independent variable in this study was health education using audiovisual media, While the dependent variables are knowledge and skills. Data analysis used Wilcoxon test and data collection using knowledge questionnaire and BSE skill observation sheet

3. FINDINGS AND DISCUSSION

Table 3.1 Frequency distribution of knowledge categories of adolescent girls about Breast Self Examination (BSE) before and after intervention in 2023

Category	Before		After	
	n	%	n	%
Good	9	10.5	69	81.2
Enough	68	80.0	16	18.8
Less	8	9.4	0	0
Amount	85	100	85	100

Based on table 1.1 shows that most of the adolescent girls had sufficient knowledge, namely 68 people (80.0%) before being given the intervention, while after being given the intervention most of them had good knowledge, namely 69 people (81.2%).

Table 3.2 Frequency Distribution of skill categories of adolescent girls about Breast Self Examination (BSE) before and after intervention in 2023

Category	Before		After	
	n	%	n	%
Good	0	0	10	11.8
Enough	3	3.5	48	56.5
Less	82	96.5	27	31.8
Amount	85	100	85	100

Based on table 3.2, it shows that most of the adolescent girls have insufficient skills, namely 82 people (96.4%) before being given the intervention, while after being given the intervention most of them have sufficient skills, namely 48 people (56.5%).

Table 3.3 Effect of health education through audio-visual media on adolescent girls' knowledge about Breast Self Examination (BSE) in 2023

Variabel	Before	After	<i>P Value</i>
Mean	67.24	85.24	0.000
Median	66	86	
SD	6.67	7.44	
Min	53	73	

Max	83	96
Mean Difference	18	
N	85	85

Based on Table 3.3, it is known that the number of samples is 85 people who are given intervention using audio visual media with statistical test results is 0.000 which means <0.05 , so there is an effect of health education using audio visual media before and after intervention.

Table 3.4 Effect of health education through audio visual media on adolescent girls' skills about Breast Self Examination (BSE) in 2023

Variabel	Brfore	After	P Value
Mean	39.07	64.64	0.000
Median	37.50	62.50	
SD	9.18	6.94	
Min	20.8	50.0	
Max	62.5	83.3	
Mean Difference	25.56		
N	85	85	

Based on Table 1.4, it is known that the number of samples is 85 people who are given interventions using audio visual media with statistical test results is 0.000 which means <0.05 , so there is an effect of health education using audio visual media before and after intervention..

1. DISCUSSION

1. The effect of providing Health Education through audiovisual media on the knowledge of adolescent girls about Breast Self Examination (BSE)

The results of the research that have been carried out obtained that the average knowledge of adolescent girls before health education using audio visual media most of the respondents are still in the moderate category, while after health education using audio visual media increases to a good category. So it can be concluded that there is an effect of health education using audio visual media on the level of knowledge of respondents. This is because adolescent girls before being given health education using audio visual media, do not know about Breast Self Examination (BSE) so that the level of knowledge of adolescent girls is smaller than the knowledge after being given health education using audio visual media. Health education is the first step in improving a person's knowledge because it can provide knowledge, including education about breast self-examination (BSE) because BSE can reduce the incidence of breast cancer in women.(Notoatmodjo, 2015)

Health education media is very important for the success of health education because it can attract participants' attention. Attractive media can increase participants' confidence so that cognitive, affective, and psychomotor changes can be accelerated.(Praamerwesti, 2017). According to Rahayu et al. (2020) video media is used in learning activities not only as a tool, but also as a sender of messages or information to be conveyed.(Rahayu & Kartika, 2020)

The use of audio-visual media, such as moving images and videos that involve the senses of sight and hearing, will help adolescent girls in the learning process which functions to make information clearer and easier to understand. This is in line with the theory put forward by Suiroaka which states that a person will remember (20%) of what is heard, remember (50%) of what is seen and remember (80%) of what is heard, seen and directly done.(Suiroaka & Supariasa, 2012). Audio-visual media is used as a learning medium, and over time, it utilizes concrete experience as a learning model. The purpose of this learning model, among others, is to increase lesson absorption, clarify and simplify unclear concepts, and encourage the desire to learn.(Devi & Warsiti, 2013)

The use of video media in learning activities is not only as a tool, but as a message or information to be conveyed. The use of BSE videos can clarify the abstract picture of the importance of breast self-

examination because respondents not only hear the information conveyed but also see the BSE process directly and clearly.(Devi & Warsiti, 2013) This is in line with research conducted by Lestari et al. (2019) which found that there was a significant difference in the knowledge of adolescent girls about BSE before and after being given health education through audio visual media.(Lestari & Wulansari, 2019) From the description above, the existence of health education through audio visual media increases the knowledge of adolescent girls about BSE.

The results of research from Dewi et al. (2021) showed that the high knowledge of adolescent girls about BSE will encourage them to detect breast cancer early and then reduce the mortality rate due to cancer.(Dewi et al., 2021) Based on the description above, it can be harmonized with the results of the study that the use of audio-visual media in health education can increase the knowledge of adolescent girls about Breast Self Examination (BSE).

2. The effect of providing health education using audiovisual media on the skills of adolescent girls about Breast Self Examination (BSE)

The results of the research that have been carried out obtained that the average skills of adolescent girls before health education using audio-visual media most of the respondents are still in the less category, while after health education using audio-visual media has increased to a sufficient category. So it can be concluded that there is an effect of health education using audio visual media on the level of skills of respondents. Health education was provided using the short movie "Let's Detect Breast Cancer Early", respondents were more active in listening because they saw the steps of BSE and it did not confuse them. After watching the video, some respondents asked about the explanation in the video. Researchers used video as a health education tool because adolescents' reading culture is declining and they prefer electronic media to learn.

The results of this study are in accordance with the opinion of Notoatmodjo (2015) which states that health education is an effort or activity to create good community behavior for health.(Notoatmodjo, 2015) With the health education and training, these adolescent girls have a better understanding of each step according to the procedure, so they not only know but can also apply it in their daily lives. They also provide information about the implementation of BSE for their surrounding environment. Before the use of audio-visual media in health education, respondents did not have a correct understanding of each step of BSE. Their knowledge of BSE was obtained from searching for information on the internet and discussing with friends, so there were only a few techniques they could do, including step 1, step 6, step 8, and step 9. After receiving health education and reassessment, respondents' skills improved with an average score of 64.642. However, most respondents still forgot step 2, step 7, and step 12. Factors influencing the suboptimal assessment results included the fact that respondents only had one day to learn the material, even though the video had been provided seven days ago, and they also still had other schoolwork, so the time available to understand the BSE steps was limited. According to the researcher, adolescent girls become aware of the importance of health education on BSE for early detection of breast cancer. Therefore, adolescents should receive health education through effective media.

In line with the research findings of Patimbang (2022) which showed that health education about BSE given to adolescent girls through audio-visual media can increase adolescent girls' understanding of the importance of conducting breast self-examination and the importance of detecting breast cancer early. Video media was chosen by researchers as a health education media in this study because it is considered more effective and attractive to adolescent girls, so that the achievement of health education goals will be more optimal.(Patimbang, 2022). Video media can help convey information because the message is easier to remember and can be developed through memory. Information about BSE can be conveyed and received by adolescents through videos.(Wijiastuti et al., 2023) In line with Putri's research (2018), the use of video media involves two

senses at once in delivering information to respondents, namely the sense of sight and the sense of hearing, this makes information more easily accepted by respondents.(Putri, 2018)

These results indicate that health education on BSE examination conducted through BSE videos can improve the skills of adolescent girls in performing BSE. Health education provided through this BSE video is very influential on the knowledge and skills of adolescent girls in performing BSE because they indirectly try to understand the process of doing BSE. This media also contains vivid images projected through a mechanical projector lens and uses sound to emit the sound.(Habibah, 2020)

This is in line with the theory that a sign that an individual has learned is a change in behavior, such as attitudes or skills, which is caused by changes in the level of knowledge.(Piranti, 2021)

4. CONCLUSION

Based on the results of research and discussion, it can be concluded as follows :

1. There is an effect of health education using audio visual media on knowledge about Breast Self Examination (BSE) at SMAN 10 Tasikmalaya with a P-Value = 0.000 or $P < 0.05$.
2. There is an effect of health education using audio visual media on skills about Breast Self Examination (BSE) at SMAN 10 Tasikmalaya with a P-Value = 0.000 or $P < 0.05$

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